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ALAMEDA POINT
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Arc Ecology

Peace • • • Environment • • • Economy • • • Society

July 19, 2000

Mr. Mike McClelland
BRAC Environmental Coordinator
1230 Columbia Street
San Diego, CA 92101

Sent by FAX to: 619-532-0983

Dear Mr. McClelland:

Please find enclosed, Arc Ecology's comments on the Remedial Action Plan / Record of Decision and the Proposed Plan for the Marsh Crust and Subtidal Areas at Alameda Point and for the Marsh Crust and Shallow Groundwater at the FISC Annex. Also note that we have included an Alameda Point Restoration Advisory Board resolution related to the Marsh Crust as part of our comments.

If you have any questions, please do not hesitate to contact me at the Arc Ecology office.

Best Regards,

Ken Kloc

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Environmental Analyst

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Arc Ecology

July 19, 2000

Comments on the Draft Remedial Action Plan / Record of Decision and the Proposed Plan for the Marsh Crust and Groundwater at the Fleet and Industrial Supply Center Oakland, Alameda Facility / Alameda Annex, and for the Marsh Crust and Former Subtidal Area at Alameda Point

1. Insufficient Investigation of Subsurface Soil Contamination in Marsh Crust and Subtidal Areas

The Record of Decision / Remedial Action Plan (RAP/ROD) and Proposed Plan are based upon an insufficient investigation of the subsurface contamination present in the Marsh Crust and Subtidal (MCS) soil layer. In developing a feasibility study for the MCS contamination, the Navy has treated the MCS soil layer as a *de facto* operable unit. However, the Navy has never carried out a remedial investigation specifically for this operable unit. Much of the data used in the MCS feasibility study came from remedial investigations that were not specifically designed to characterize the nature and extent of the MCS contamination. As such, numerous data gaps exist, and this has produced an incomplete conceptual model for the MCS area.

More specifically, the MCS feasibility study is based on remedial investigations carried out at other operable units on the FISC Annex and Alameda Point. However, these investigations do not provide sufficient coverage of the entire MCS area. The MCS contamination has been investigated in less than half of the region of Alameda Point believed to be affected by this contamination.

This inadequate level of sampling is problematic from the perspective of defining both the horizontal and vertical extent of MCS contamination. In developing its remedial action plan, the Navy has assumed that the MCS contamination exists in a narrow and clearly defined planar zone of subsurface soil. This assumption is not health protective, since it does not consider the possibility that deep soil may have been displaced to shallow and surface soils during excavation and regrading activities carried out as part of historical construction projects. Indeed, there is at least one site at Alameda Point (IR Site 25) where Marsh Crust contamination has been found in surface and shallow subsurface soils (i.e., at 1 to 2 ft. below ground surface). Site 25 is an area where soil regrading may have disturbed the original placement of the Marsh Crust contaminants in the deep soil. Similarly, historical regrading or excavations may have brought deep-soil contamination closer to the surface at other MCS area parcels. However, the Navy has not adequately investigated MCS contamination at many Alameda Point parcels, and it does not have the required data to rule out this possibility.

Under these circumstances Arc Ecology does not feel that the RAP/ROD and the Proposed Plan are sufficiently protective of human health or the environment. Accordingly we recommend revision of these documents after the appropriate remedial investigation for the MCS contamination has been completed.

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2. Benzene Contamination in Groundwater and Soil Gas

Soil gas studies conducted at both FISC Annex and Alameda Point have indicated a low spatial correlation between soil gas and groundwater benzene concentrations. However, the Navy has not carried out studies to determine the reason for this low correlation. Arc has two main concerns with the lack of investigative follow-up in this case:

- First, we believe that several rounds of soil gas sampling should have completed over the course of a year in order to characterize variability due to changing atmospheric conditions.

- Second, we point to a recent Lawrence Berkeley Laboratory soil gas study conducted at one of the Alameda Point fuel contamination sites (M.L. Fischer et. al., Environmental Science and Technology, v30, pp 2948-57, 1996). In this study, a thin, relatively impermeable soil layer at 0.7 meters below the surface of the site, was found to be responsible for a large fraction of the observed soil gas attenuation. If a similar soil layer exists at the FISC Annex, this may be the reason for the low benzene soil gas concentrations found above the groundwater plumes. Should such a shallow soil layer be responsible for benzene attenuation at the FISC Annex, then institutional controls on soil excavation may be necessary to prevent disruption of the soil layer, and to prevent consequently increased transport of benzene vapor into buildings situated above the groundwater plumes.

Accordingly, Arc recommends further study of the groundwater-to-soil gas pathway prior to finalizing the RAP/ROD and the Proposed Plan.

3. Naphthalene Contamination in Groundwater.

In addition to benzene, shallow groundwater at the FISC Annex contains elevated concentrations of naphthalene, a chemical which is volatile enough that it may become an indoor air hazard at buildings situated above a groundwater plume. Naphthalene concentrations in groundwater at the southern portion of the FISC property have been as high as 7800 ppb (MW-9). Groundwater underneath Marina Village housing (Alameda Point parcel 178) was also found to have elevated levels of naphthalene. Furthermore, 7 out of 23 indoor air samples taken at Marina Village housing under the FISC Annex sampling program showed naphthalene concentrations in the range of 150 to 280 ppb. These values are substantially higher than EPA's ambient air PRG for naphthalene.

The Alameda Annex study dismissed these indoor air concentrations of naphthalene, assuming that they resulted from the household use of mothballs. In the absence of proof that these housing units contained mothballs, Arc Ecology is concerned that elevated indoor air concentrations of naphthalene may, instead, be due to contaminated groundwater and soil at Alameda Point Parcel 178. Furthermore, we are concerned that the Parcel 178 indoor air results indicate a wider problem with naphthalene in groundwater at the FISC Annex. We therefore believe that the current RAP/ROD and Proposed Plan for groundwater may not be protective for future residential or commercial use of these parcels. Accordingly, we recommend further study to clarify the exact nature of the groundwater-to-indoor air problem at the subject sites.

4. Selected Remedy for Marsh Crust and Former Subtidal Area

a. Lack of community support for current land use controls

The Navy has chosen land use controls as its preferred remedial action for the MCS soil contamination at Alameda Point and the FISC Annex. According to the Navy, a key component of these land use controls will be the Marsh Crust Ordinance, described on page 2-20 of the RAP/ROD.

Land use controls, as they are currently construed by the Navy, do not have full community support. The Alameda Point Restoration Advisory Board (RAB) has criticized the Navy's current plan for institutional controls, which relies heavily upon the Alameda Marsh Crust Ordinance. For example the community members of the RAB have recently passed a resolution criticizing the Alameda Marsh Crust Ordinance, and by implication, the Navy's land use control plan. Both Arc Ecology and the Alameda RAB are concerned that the Ordinance:

- Incorrectly assumes that the Navy has fully characterized the lateral and vertical extent of the MCS contamination at Alameda Point

- Does not provide for an ongoing program of notification to residents that institutional controls have been placed upon their property

- Indiscriminately covers areas that may not be contaminated and thus may place an unnecessary financial burden upon affected Alameda citizens. The Navy has not taken this cost into consideration when evaluating its remedial alternatives

In addition, we now attach, and include for the record, the Alameda RAB resolution on the Marsh Crust Ordinance.

We also point out that even if the Navy were not to rely on the Alameda Marsh Crust Ordinance as a key component of its institutional control plan, the RAB's criticisms, as presented in the attached resolution, would still be relevant to the proposed remedial action, since the Navy's contingency plan, in the case that the Ordinance is repealed, suffers from the same problems as the City Ordinance.

b. Land Use Control Implementation and Certification Plan (LUCICP)

The Navy states that the, "roles and responsibilities for implementing and enforcing the land use controls would be documented in the LUCICP." As described, the content of the LUCICP indicates that it should be a component of the RAP/ROD and Proposed Plan, open to public review and comment. Arc Ecology is concerned that the current plan to prepare the LUCICP after the comment period for the Proposed Plan, will circumvent the CERCLA community participation requirements. We therefore recommend that the formal public comment period for this Proposed Plan be extended until the LUCICP is prepared and we also recommend that that the normal CERCLA public review and comment protocols be followed in the preparation of the LUCICP document.

c. Deed restrictions

The Navy's selected remedy includes deed restrictions enforceable by the Navy. However, the U.S. EPA has recently stated in a 5/11/2000 letter to Mr. Dana Sakamoto of the Navy's EFD Southwest office, that it, "considers a covenant enforceable by the Navy to be a necessary part of an institutional control remedy for any Navy property being transferred..." Arc Ecology concurs with the EPA's opinion. Accordingly, we recommend that the Navy include the language of such a covenant in the RAP/ROD.

d. Threshold depths not reported

Please report the threshold depths below which excavation shall be prohibited. Arc recommends that a threshold depth map be provided in the RAP/ROD. Given that this is an important technical component supporting the Proposed Plan, the public should be given the opportunity to comment upon this aspect of the remedy.

e. Expected outcomes of the selected remedy

The Navy states that the selected remedy would meet the Remedial Action Objective (RAO) because land use controls will prevent undue exposure. Arc Ecology disagrees that the Navy has met the RAO, since the Navy's rationale was developed in the absence of a proper and complete remedial investigation for the MCS contamination. We believe that there is a reasonable likelihood that MCS contamination may exist in shallow and surface soils at numerous Alameda Point parcels that have not been adequately sampled for PAHs throughout the soil column.

5. Selected Remedy for Shallow Groundwater

a. Unrestricted use of groundwater for irrigation

Groundwater in the regions affected by the MCS contamination contains elevated levels of some of the more soluble PAH compounds, as well as, benzene. Thus, the Navy's selected remedy for shallow groundwater stipulates that the, "disposal of extracted groundwater from construction site dewatering into the waters of the state except in compliance with the requirements of RWQCB will be prohibited." On the other hand, the selected remedy will allow unrestricted use of groundwater for irrigation purposes. We are concerned that unrestricted use of groundwater for irrigation will result in the discharge of contaminated groundwater to storm drains. In a typical irrigation scenario, the probability of overwatering is relatively high and this would produce contaminated runoff. Thus we believe that the Navy's proposed groundwater remedy will not achieve compliance with the Clean Water Act.

b. Unresolved soil gas data gaps

Given the unresolved questions regarding both benzene and naphthalene in soil gas at the subject sites, we do not believe that the selected remedy for groundwater at the FISC Annex is supported by a sufficient level of investigation. As such there is a reasonable possibility that the selected remedy for groundwater may not be sufficiently protective of human health.

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Appendix

Resolution of the Restoration Advisory Board (RAB) for the Former U.S. Naval Air Station, Alameda, California (Alameda Point), April 4, 2000

(two pages to follow)

Resolution of the Restoration Advisory Board (RAB) for the former U.S. Naval Air Station, Alameda, California (Alameda Point) April 4, 2000

WHEREAS: The responsibilities of the Alameda Point Restoration Advisory Board include providing advice to various government agencies related to the environmental restoration at the Alameda Point Superfund Site, and also interacting with land use planning bodies to discuss future land use issues relevant to environmental decision making; and

WHEREAS: The U.S. Navy is responsible for environmentally restoring properties that have been under its control, including Alameda Point and the adjacent FISC Annex facility. As part of its restoration program at these two facilities, the Navy has proposed institutional controls as the remedy for subsurface soil contamination present in the so-called "Marsh Crust and Subtidal Zones," and

WHEREAS: The U.S. EPA and the California Department of Toxic Substances Control (California DTSC) have indicated their agreement with the Navy's proposal to use institutional controls as a remedy for the Marsh Crust and Subtidal Zone contamination; and

WHEREAS: The main mechanism by which these institutional controls will be implemented is an excavation ordinance that has been passed by the City of Alameda; and

WHEREAS: The community members of the Alameda Point RAB have reviewed the City's excavation ordinance and have significant concerns with its provisions. These include the following issues:

- The ordinance assumes that the Marsh Crust contamination has been adequately characterized by the Navy and that areas of contaminated and uncontaminated soils are accurately known. In fact, the Navy has not carried out sampling of deeper soils at many of its parcels. Therefore the permitted excavation depths will, in many cases, be speculative.

- The ordinance only covers former Navy property that is being transferred to the City, even though the Marsh Crust contamination is known to extend beyond Navy property. Since the ordinance and the Navy have already determined that this contamination represents a toxic hazard to occupants on Navy property, then those non-Navy property occupants subject to the same Marsh Crust hazard should be extended equal protection, now and in the future.

- The ordinance indiscriminately covers areas that may not be contaminated. For example, the ordinance covers all Alameda Point parcels going to the City, even though the Marsh Crust and Subtidal contamination has not been demonstrated to exist at all of these parcels. Thus, the ordinance is over-expansive and may place an unnecessary financial burden upon affected Alameda citizens.

- The most probable excavator into the Marsh Crust will be the City of Alameda itself (all underground trenching for utilities), or a utility company. The ordinance does not cover institutional oversight or controls on the city of Alameda or its agencies and possibly other utility companies. Since the costs of laboratory/chemical tests, health and safety plans, operation plans, certification surveillance, and length-of-time for approval, all add up to inconvenience, delay, and cost, self-policing by the City would be a direct conflict of interest. In particular, the California DTSC needs to be more directly involved in overseeing the proposed institutional controls.

- The ordinance does not provide for an ongoing program of notification to residents that institutional controls have been placed upon their property

WE THEREFORE: Notify the City of Alameda that its excavation ordinance suffers from significant deficiencies that may cause the City difficulties in the future; and

FURTHER: We recommend that the City of Alameda take the following actions:

- Petition the U.S. EPA and the California DTSC to require the Navy to fully characterize all of its parcels within the Marsh Crust and Subtidal zones prior to transfer.

- Revise the excavation ordinance in order to make it an effective and reasonable institutional control for protecting public health at the Marsh Crust and Subtidal zone; only fully characterized areas that indicate the presence of Marsh Crust contamination should be covered; in addition, Marsh Crust contaminated areas beyond Navy property should be included in the ordinance.

- Request that that the Navy help defray the cost of the institutional controls so that they do not become an undue burden on the City.

- Implement a notification program providing all residents and property owners within the Marsh Crust map area annual notice of the potential hazard and of the terms of the Marsh Crust Ordinance.

- Provide for provisions assuring that the ordinance covers City of Alameda and utilities.

FAX NOTE

DATE: 07/19/00	PAGES (WITH COVER): 9

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Steve Edde	Navy, EFA Southwest	510-749-5978
Anna-Marie Cook	U.S. EPA Region 9	744-1916
Mary Rose Cassa	California DTSC	510849-5285

Dear Mike & All,

Please find the enclosed comments on the Marsh Crust documents.

Best Regards,

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